

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (currently amended) A fuel cell comprising:
 - a hydrogen flow path configured to pass hydrogen into communication with an anode catalyst of an MEA;
 - a coolant flow path configured to pass coolant through the fuel cell to cool the fuel cell, the coolant flow path comprising a coolant reservoir;
 - a first enclosure encompassing at least a part of the coolant flow path;
 - a first passive hydrogen vent configured to vent hydrogen from the first enclosure without reliance upon any electrical device or other active components to function and configured to maintain the hydrogen concentration within the first enclosure below about 4 percent;
 - a second enclosure encompassing at least a part of the hydrogen flow path; and
 - a second hydrogen vent configured to vent hydrogen from the second enclosure.
2. (previously presented) A fuel cell according to Claim 1, wherein the second enclosure surrounds a member selected from the group consisting of a fuel cell stack through which the hydrogen flow path and the coolant flow path pass and a hydrogen supply reservoir of the hydrogen flow path.

3. (previously presented) A fuel cell according to Claim 1, wherein the first passive hydrogen vent and the second hydrogen vent comprise a porous material selected from the group consisting of cellulose, plastic and metal.

4. (previously presented) A fuel cell according to Claim 1, wherein the first enclosure comprises the coolant reservoir and the first passive hydrogen vent is located within a wall of the coolant reservoir.

5. (previously presented) A fuel cell according to Claim 4, wherein the first passive hydrogen vent is further configured to substantially prevent the coolant from passing through the vent.

6. (cancelled)

7. (previously presented) A fuel cell according to Claim 1, wherein the first passive hydrogen vent and the second hydrogen vent are configured to maintain a hydrogen concentration within the enclosure below about 1 percent without reliance upon any electrical device.

8. (cancelled)

9. (previously presented) A fuel cell according to Claim 1, further comprising a third enclosure that encompasses at least one of the first enclosure and the second enclosure, the third enclosure having a third hydrogen vent.

10. (previously presented) A fuel cell according to Claim 1, wherein the first passive hydrogen vent and the second hydrogen vent are further configured to prevent a flame front from passing through the vent.

11. (currently amended) A method of manufacturing an MEA fuel cell, comprising:
creating a hydrogen fuel flow path to conduct hydrogen through the MEA fuel cell;
creating a coolant flow path configured to pass coolant through the fuel cell to cool the fuel cell, the coolant flow path comprising a coolant reservoir;
enclosing at least a part of the coolant flow path in a first enclosure;
providing a first passive hydrogen vent in the first enclosure, the first passive hydrogen vent configured to passively maintain the level of hydrogen which leaks into the first enclosure below a concentration level of about 4 percent without reliance upon any electrical device or other active components to function;
enclosing at least a part of the hydrogen fuel flow path in a second enclosure which captures hydrogen that leaks, directly or indirectly, from the hydrogen fuel flow path; and
providing a second hydrogen vent in the second enclosure, the second hydrogen vent configured to maintain the level of hydrogen which leaks into the second enclosure below a concentration level of about 4 percent.

12. (previously presented) A method of manufacturing a fuel cell according to Claim 11, wherein the first enclosure comprises the coolant reservoir and the first passive hydrogen vent is located within a wall of the coolant reservoir.

13. (previously presented) A method of manufacturing a fuel cell according to Claim 12, wherein the first passive hydrogen vent passively maintains the level of hydrogen by comprising a porous material capable of passing hydrogen therethrough and capable of substantially preventing the coolant from passing therethrough.

14. (cancelled)

15. (original) A method of manufacturing a fuel cell according to Claim 12, wherein passively maintaining the level of hydrogen further comprises passively maintaining the level of hydrogen which leaks into the enclosure below a concentration level of about 1 percent.

16. (cancelled)

17. (previously presented) A method of manufacturing a fuel cell according to Claim 11, wherein passively maintaining the level of hydrogen further comprises selecting a porous material capable of passing hydrogen therethrough and capable of substantially preventing a flame front from passing therethrough.

18. (original) A method of manufacturing a fuel cell according to Claim 17, wherein selecting a porous material further comprises selecting a porous material selected from the group consisting of cellulose, plastic and metal.

19. (cancelled)

20. (previously presented) A method of manufacturing a fuel cell according to Claim 11, further comprising a third enclosure that encompasses at least one of the first enclosure and the second enclosure, the third enclosure having a third hydrogen vent.